



DEPARTMENT OF ENERGY

Federal Energy Regulatory Commission

[Docket No. AD20-21-000]

Notice of Availability of Revised Final Engineering Guidelines for the Evaluation of Hydropower Projects: Chapter 16 – Part 12d Program

On December 16, 2021, the Federal Energy Regulatory Commission issued a Notice of Availability of Final Engineering Guidelines for the Evaluation of Hydropower Projects: Chapter 16 – Part 12D Program.¹ Chapter 16 provides licensee guidance related to any Periodic Inspection or Comprehensive Assessment performed, and the report on it filed, to fulfill the requirements defined in Title 18 Code of Federal Regulations (CFR) Part 12, Subpart D. The Chapter includes an overview of the part 12D program, as well as six appendices. Appendices B, C, D, and E are outlines for the four major types of reports that must be submitted. Due to a compilation error during final preparation of the chapter, four of the included appendices were from an outdated draft version that did not incorporate all of the changes that staff made to address comments received on the draft chapter. This notice provides a revised version of Chapter 16's appendices B, C, D, and E, which were the only portions of Chapter 16 that were affected by this error.

The appendices provide the outlines and instructions for several required filings that document a Part 12D Inspection and are required by the Commission's regulations: Appendix B: the Periodic Inspection Report (PIR), Appendix C: Periodic Inspection Pre-Inspection Preparation Report (PI-PIPR), Appendix D: Comprehensive Assessment Report (CAR), and Appendix E: Comprehensive Assessment Pre-Inspection Preparation Report (CA-PIPR). These revisions to Appendices B through E ensure that the report outlines and content are consistent with the corresponding text in the body of Chapter 16. The revisions in each appendix are described below.

Chapter 16, Appendix B – Outline for the Periodic Inspection Report

- Section 1.2 Potential Failure Modes and Risk
 - Listed the types of potential failure modes (PFMs) to summarize and provided an example table to document the findings.
- Section 1.3.3 Hazard Potential Classification

¹ Chapter 16 is one of four new chapters of the Guidelines providing additional guidance related to 18 CFR part 12, Safety of Water Power Projects and Project Works, for which a Final Rule was also issued on December 16, 2021. Final Rule, Order No. 880, 87 FR 1490 (Jan. 11, 2022), 177 FERC ¶ 61,204 (2021).

- Clarified that the significant changes to the population at risk must be identified since the previous Part 12D Inspection.
- Section 1.4 Recommendations
 - Provided an example table to summarize recommendations and the suggested schedule.
- Section 2.1 Location and Purpose
 - Revised reference to Appendix C: Project Figures.
- Section 2.2 Description of Project Features
 - Clarified that the project information must not be a copy and paste from the STID.
 - Added “tunnel lining drainage holes” to the bulleted list for Water Conveyances.
- Section 3.3 Recommendations of Previous Independent Consultants
 - Revised heading text.
 - Clarified that the summary table must include recommendations from “earlier” Part 12D reports.
- Section 3.7 Previously Identified PFMs
 - Clarified that the IC Team can provide recommendations to improve the PFMA and PFMs
- Section 4 Field Inspection Observations and Interpretation of Monitoring Data
 - Revised the use of standard terms to describe the condition of project features allowing the IC Team to use consistent terminology provided the terms are identified and defined.
- Section 4.2.1 Field Inspection Observations
 - Revised reference to Appendix E: Inspection Photographs.
- Section 4.2.2 Review and Evaluation of Instrumentation Data and Surveillance
 - Revised reference to Appendix D: Instrumented Monitoring Data Plots.
- Section 5.5 Public Safety Plan
 - Inserted the requirement that the Public Safety Plan must also document the licensee’s response and implementation of any required remediation measures related to project-related public safety incidents.
- Appendix B FERC Letter Approving Part 12D Inspection Plan and IC Team
 - Revised appendix title.
- Appendix C Summary of Independent Consultant’s Recommendations
 - Appendix deleted.
- Appendices D through H
 - Redesignated as Appendices C through G due to the removal of Appendix C.
 - Subsequent revisions listed below are for the redesignated appendix label.
- Appendix D Instrumented Monitoring Data Plots
 - Revised appendix title and text from “Instrument~~ation~~ Monitoring” to “Instrument~~ed~~ Monitoring.”

- Revised content to be provided in the appendix from reproductions of entire Dam Safety Surveillance and Monitoring Reports (DSSMRs) to excerpts from and citations to previous DSSMRs relevant to the review.
- Appendix E Inspection Photographs
 - Revised description of how to provide full resolution digital photographs.

Chapter 16, Appendix C – Outline for the Periodic Inspection Pre-Inspection Preparation Report (PI-PIPR)

- Changes to ensure consistency in headings and text with the above list of changes in Chapter 16, Appendix B
- Addition of placeholder sections to the outline to ensure consistent numbering between the PIR and PI-PIPR. Placeholder sections are marked with the following text: “This section is reserved as a placeholder so the numbering is consistent with the PIR. No content is required to be provided in this section of the PI-PIPR.”

Chapter 16, Appendix D – Outline for the Comprehensive Assessment Report (CAR)

- Section 1.2 Potential Failure Modes and Risk
 - Section 1.2 is redesignated as Section 1.5 Potential Failure Modes Analysis, Risk Analysis, and Dam Safety Risk Classification.
 - Revised Section 1.5 to provide separate subsections as listed below, describing the required content:
 - Section 1.5.1 Potential Failure Modes Analysis
 - Section 1.5.2 Level 2 Risk Analysis
 - Section 1.5.3 Dam Safety Risk Classification
- Sections 1.3 through 1.5
 - Redesignated as Sections 1.2 through 1.4 due to the redesignation of the above listed item.
- Section 1.6 Recommendations
 - Provided an example table to summarize recommendations and the suggested schedule.
- Section 2.2 Description of Project Features
 - Clarified that the project information must not be a copy and paste from the STID
 - Added “tunnel lining drainage holes” to the bulleted list for Water Conveyances.
- Section 3.2.1 Design Considerations
 - Revised final bullet to clarify that the current state of practice means “at the time of the Comprehensive Assessment.”
- Section 3.5
 - Revised heading text from “Powerplant” to “Powerhouse”
- Section 4: Review and Evaluation of Previous Analysis

- Revised reference to Appendix J: Independent Calculations
- Section 4.4 Analyses of Project Features
 - Redesignated subheadings from “4.4.X” to “4.4.1” for Project Feature 1, with a further example provided as “4.4.2” for Project Feature 2 and so forth.
- Section 5.3 Recommendations of Previous Independent Consultants
 - Revised heading text.
 - Clarified that the summary table must include recommendations from “earlier” Part 12D reports.
- Section 6 Field Inspection Observations and Interpretation of Monitoring Data
 - Revised the use of standard terms to describe the condition of project features allowing the IC Team to use consistent terminology provided the terms are identified and defined.
- Section 6.2.1 Field Inspection Observations
 - Revised reference to Appendix E: Inspection Photographs.
- Section 6.2.2 Review and Evaluation of Instrumentation Data and Surveillance
 - Revised reference to Appendix D: Instrumented Monitoring Data Plots.
- Section 7.5 PFMA
 - Provided two sets of instructions depending on whether the IC Team prepared the PFMA report.
- Section 7.6 Risk Analysis and Summary
 - Revised instructions depending on whether the IC Team prepared the Risk Analysis report.
- Section 8.8 Supporting Technical Information Document and Digital Project Archive
 - Added “and Digital Project Archive” to the heading text.
 - Revised subheadings 8.8.5, 8.8.7, 8.8.8, and 8.8.9 to more closely match the STID headings provided in Chapter 15 of the Engineering Guidelines.
- Appendix B FERC Letter Approving Part 12D Inspection Plan and IC Team
 - Revised appendix title.
- Appendix C Summary of Independent Consultant’s Recommendations
 - Appendix deleted.
- Appendices D through H
 - Redesignated as Appendices C through J due to the removal of Appendix C.
 - Subsequent revisions listed below are for the redesignated appendix label.
- Appendix D Instrumented Monitoring Data Plots
 - Revised appendix title and text from “Instrumentation Monitoring” to “Instrumented Monitoring”
 - Revised content to be provided in the appendix from reproductions of entire Dam Safety Surveillance and Monitoring Reports (DSSMRs) to excerpts from and citations to previous DSSMRs relevant to the review.

Chapter 16, Appendix E – Outline for the Comprehensive Assessment Pre-Inspection Preparation Report (CA-PIPR)

- Changes to ensure consistency in headings and text with the above list of changes in Chapter 16, Appendix D
- Addition of placeholder sections to the outline to ensure consistent numbering between the CAR and CA-PIPR. Placeholder sections are marked with the following text: “This section is reserved as a placeholder so the numbering is consistent with the CAR. No content is required to be provided in this section of the CA-PIPR.”

All information related to “Chapter 16 – Part 12D Program,” including the draft chapter, all submitted comments, the final chapter, and the revised final chapter incorporating the above listed revisions, can be found on the FERC website (www.ferc.gov) using the eLibrary link. Click on the eLibrary link, click on “General Search” and enter the docket number, excluding the last three digits in the Docket Number field (i.e., AD20-21). Be sure you have selected an appropriate date range. The Commission also offers a free service called eSubscription that allows you to keep track of all formal issuances and submittals in specific dockets. This can reduce the amount of time you spend researching proceedings by automatically providing you with electronic notification of these filings and direct links to the documents. Go to the Commission’s website (www.ferc.gov), select the FERC Online option from the left-hand column, and click on eSubscription. Users must be registered in order to use eSubscription.

The revised version of Chapter 16 is also available on the Commission’s Division of Dam Safety and Inspections website at: Engineering Guidelines for the Evaluation of Hydropower Projects | Federal Energy Regulatory Commission (ferc.gov).

For assistance with any of the Commission’s online systems, please contact FERC Online Support at FercOnlineSupport@ferc.gov or toll free at (866) 208-3676, or for TTY, contact (202) 502-8258.

Dated: March 29, 2023.

Kimberly D. Bose,
Secretary.

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